

Thapsigargin

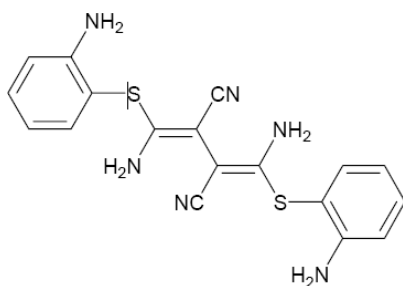
Product Specifications	
Catalog Number:	908-298
m.w:	650.8 kDa
Application Notes:	Cell permeable tumor promoter; induces the release of intracellular stored calcium; not sterile
Purity:	99% as determined by HPLC
Format:	Lyophilized; soluble in DMSO, ethanol, and acetone at 20 mg/mL
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C; solutions may lose activity after 1 week
Related Products:	
KAP-CP131	eIF-2 α (phospho-Ser52) Polyclonal Antibody
KAP-CP130	eIF-2 α Polyclonal Antibody
905-729-100	ATF6 Polyclonal Antibody
905-727-100	IRE1p Polyclonal Antibody
905-739-100	XBP-1 Polyclonal Antibody
908-297	Tunicamycin

Background:

Thapsigargin, a strong inducer of the unfolded protein response (UPR), acts as a specific inhibitor of the sarcoplasmic/ endoplasmic reticulum Ca²⁺-ATPase (SERCA). Treatment with thapsigargin increases cytosolic calcium levels following release of intracellular calcium stores, and appears to act as a weak skin tumor promoter in mice¹⁻³. Depletion of ER calcium stores leads to Ca²⁺ influx via activation of store-operated calcium channels in the plasma membrane, mediating physiological functions such as exocytosis, muscle contraction, sperm chemotaxis, gene transcription, cell division, and apoptosis^{1,4}.

References:

1. Parekh, A.B. and Putney, J.W. (2005) *Physiol Rev.* **85**, 757-810.
2. Hakii, H., *et al.* (1986) *J Cancer Res Clin Oncol.* **111**, 177-181.
3. Lowry, D.T., *et al.* (1996) *Carcinogenesis* **17**, 699-706.
4. Nakamura, K., *et al.* (2000) *J Cell Biol.* **150**, 731-740.



Structure

FOR RESEARCH USE ONLY; NOT FOR THERAPEUTIC OR DIAGNOSTIC USE

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